



BIO 209E Anatomy and Physiology II

Course Description

This is the second part of Human Anatomy & Physiology. During this course, you will study the fundamentals on human body structure, its functions and some disorders using an organ-system approach. It is crucial for you to understand how cells and organs are coordinated within an integrated human physiology. Closely related systems as endocrine, cardiovascular, immune, respiratory, urinary, or digestive system develop an overall coordinated physiology.

The lab sessions of this course are related with the lectures and will reinforce concepts presented in discussions and in the text. It will be accomplished through organ dissections, model studies and simulation labs. We will also examine how certain system malfunctions may affect the delicate physiology balance (homeostasis), and how human body compensates to maintain itself.

Course Goals and Methodology

The goals of this course are to provide the student with an understanding of the general concepts and basic laboratory techniques in human Anatomy and Physiology. The course is oriented towards standard healthy aspects of human Anatomy and Physiology; however particular pathological aspects will be also described.

The methodology on this course is structured in lectures and lab sessions. Students are expected to have read the textbook chapters and lab protocols before the corresponding lectures and lab sessions, respectively. Lecture presentations, lab protocols and other course materials are posted on Blackboard prior to lectures and lab sessions.

Lecture sessions will include lecturing and discussion. Homework assignments may include the discussion of case studies and problems on the Blackboard discussion forums and an online quiz per lecture on Blackboard.

Lab sessions will include presentation of the experimental procedures and experimental work. General lab safety rules must be observed at all times. A quiz per lab session will be posted on Blackboard.

Learning Objectives

- Upon successful completion of the course, students will be able to:
- Understand homeostasis and how different physiological systems participate in its maintenance.
- Identify some pathological malfunctions, their main symptoms.
- Anticipate consequences of system malfunction on homeostasis and the existing physiological mechanisms to restore it.
- Solve biological problems.

Required Texts

- Hole's Human Anatomy and Physiology, 14th Edition. Shier, Butler, Lewis, McGraw Hill., 2016.
OR
- Hole's Human Anatomy and Physiology, 15th Edition. Shier, Butler, Lewis, McGraw Hill., 2019.



Course Requirements and Grading

Previous background in Anatomy and Physiology is required to understand basic concepts and processes that will not be detailed. Please observe this requirement before enrolling in this course.

Your final grade will be calculated as follows:

- Four equally-weighted midterm exams 60%
- Lab & case studies questionnaires + homework 30%
- Participation 10%

Participation rubric

Participation grades (up to 10%)	Inadequate	Below expectations	Meets expectations	Exemplary
Contributions to discussions	Student never contributes to class discussions or contributes just to distort the sessions Grade 0%	Student rarely contributes to class discussions. Irrelevant contributions. Grade: 0-1.2%	Student sometimes contributes to class discussions. Grade: 1.2-2.1%	Student regularly contributes to class discussions. Smart and interesting contributions. Grade: 2.1-3%
Answers to questions during sessions	Student fails to respond to questions. Student regularly caught distracted. Grade: 0%	Student responds to questions, but answers are usually wrong or irrelevant. Grade: 0-1.2%	Student responds to questions. Answers are acceptable regardless they may be wrong sometimes. Grade: 1.2-2.1%	Student responds to questions. Answers are acceptable usually correct and smart. Grade: 2.1-3%
Behavior Attitude	Student distracts other students, or interrupts discussion without contributing. Student attended session intoxicated/drunk. Noisy behavior, troublemaker. Grade: 0%	Student is distracted or uses electronic devices for other purposes. Student excuses frequently to leave the classroom/lab. Student frequently attend the session sleepy or sleeps in classroom. Grade: 0-0.8%	Student uses electronic devices to follow the course. Student rarely/sometimes excuses to leave the classroom. Grade: 0.8-1.8%	Student never generates problems in the classroom. Smooth and quiet behavior. Grade: 1.8-2%
Listening	Student does not pay attention to other student's contributions. Grade: 0%	Student never/seldom pays attention to instructor. Grade: 0.8%	Student regularly pays attention to instructor. Grade 1.4%	Student always follows instructor explanations. Grade: 2%



Grade Conversion scale

Spanish grade	10	9.5 -	9.0 -	8.5 -	8.0 -	7.5 -	7.0 -	6.5 -	6.0 -	5.5 -	5.0 -	0.0 -
		9.9	9.4	8.9	8.4	7.9	7.4	6.9	6.4	5.9	5.4	4.9
U.S. grade	A+	A	A-	B+	B	B	B-	C+	C	C	C-	F

General Course Policies

- Leaving the classroom: Leaving the classroom on repeated occasions is disturbing to both your professor and your classmates and may adversely affect your participation grade. Please make use of the 10-minutes breaks in between classes to fill up your water bottle, use the restroom, etc.
- Punctuality and tardiness: Arriving late to class is disruptive to both the professor and your classmates. Please be punctual as your professor may count your late arrival as half of an absence or simply close the door, not let any late students in and consider it as one full absence.
- Communicating with instructor: Please allow at least 48 hours for your instructor to respond to your emails. The weekend is not included in this timeframe. If you have an urgent request or question for your professor, be sure to send it during the week.
- Virtual Campus (Blackboard): Unless stated otherwise, all course announcements will be posted online in Virtual Campus (Blackboard). This is to include, but not limited to, assignments, deadlines, exam calls, homework, and changes in schedule. Electronic communications between students and instructors are also handled in Virtual Campus.
- Academic assistance: If you need academic assistance, please contact the instructor involved in that particular topic.

Attendance and Absentee Policy

Attendance is mandatory at all classes. As we understand that you might fall ill or be unable to come to class (e.g. due to a religious holiday, a flight delay, a family wedding/ reunion, a graduation, a job interview, etc.) at some point during the semester, you are allowed up to 4 absences. You will be responsible for the material covered and any work missed. You will not need to justify your absences (up to 4) in any way unless you miss an exam, a presentation, a quiz, etc. In this case, you must present a doctor's note (signed, stamped and dated) to be able to reschedule the exam, etc. It will still count as an absence but you will be allowed to retake the exam, etc. We do not encourage you to use all 4 days unless you really need them as your participation grade may suffer if you are not in class. If used unwisely and you get sick late in the semester, the following penalties will apply:

- On your 5th absence, 1 point will be taken off of your final Spanish grade
- On your 6th absence, 3 points will be taken off of your final Spanish grade
- On your 7th absence, 5 points will be taken off of your final Spanish grade

For classes that meet once a week, each absence counts as two. For classes that meet daily, the penalties outlined above apply if you go over 6 absences (7th absence=5th absence above). Exams missed due to an excused absence must be made up within a week of returning to classes. Talk to your professor immediately after your return.



There will be no make up for missed lab sessions. Labs missed due to an excused absence (e.g. medical) will be graded using the overall average lab grade obtained in those lab sessions attended. Labs missed due to unexcused absence will not be made up and will receive zero points as grade for the session and its associated homework.

Academic Honesty

Academic integrity is a guiding principle for all academic activity at Pablo de Olavide University. Cheating on exams and plagiarism (which includes copying from the Internet) are clear violations of academic honesty. A student is guilty of plagiarism when he or she presents another person's intellectual property as his or her own. The penalty for plagiarism and cheating is a failing grade for the assignment/exam and a failing grade for the course. Avoid plagiarism by citing sources properly, using footnotes and a bibliography, and not cutting and pasting information from various websites when writing assignments.

Learning accommodations

If you require special accommodations, you must stop by the International Center to speak to Marta (the Faculty coordinator: mcaroro@acu.upo.es) to either turn in your documentation or to confirm that our office has received it. Marta will explain the options available to you.

Behavior Policy

Students are expected to show integrity and act in a professional and respectful manner at all times. A student's attitude in class may influence his/her participation grade. The professor has a right to ask a student to leave the classroom if the student is unruly or appears intoxicated. If a student is asked to leave the classroom, that day will count as an absence regardless of how long the student has been in class. Cell phone use is not allowed and animals (except seeing-eye dogs) are not permitted in the classrooms.

Use of cell phones, pagers, MP3 players, headphones, texting, etc. is prohibited during class time. Please turn all of these devices to vibration mode or off upon entering the classroom. If emergency communications are required, please excuse yourself from lecture/lab.

Use of laptops for academic purposes related with this course is allowed. Running other applications in the background for other purposes is NOT permitted.

Course contents

This course includes the following content:

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| 1. Fluids and electrolytes | 6. Cardiovascular System |
| 2. Metabolism | 7. Respiratory System |
| 3. Endocrine System | 8. Renal System |
| 4. Blood | 9. Digestive System |
| 5. Lymphatic System & Immunity | |

All those items refer to aspects of Human Anatomy and Physiology